

ISO9001



The New Generation of Single Point Lubricators

Rev. 01

LUBRI-CUP™ EM & EM-X

USER MANUAL

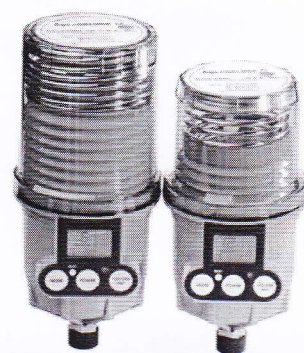
Models

Lubri-Cup EM (125, 250cc Grease Lubricator)
Lubri-Cup EM-X (125, 250cc Grease Lubricator)

Before Use

Thank you for purchasing the Lubri-Cup EM, EM-X the new and unique electro-mechanical, single-point automatic grease dispenser from Chesterton. To ensure the safe operation and proper installation of the Lubri-Cup EM, EM-X we strongly recommend that you read the following instructions carefully before use. If you require further information, please contact your local supplier.

Chesterton



LCD Display – Function

Name	Display	Function
Dispensing Period Set		Indicates period of time the unit has been set for.
Day Till Replacement		Indicates the # of days remaining until the units' Service pack must be replaced (days until lubricant expiry)
Days After Dispensing Completion		Days after dispensing cycle completion (Expiry) St-XX indicates the number of days since the lube cycle has been completed or the grease pouch has become empty. ※ "St" denotes "Stop"
Check Lube Line		# of days on standby mode due to excessive backpressure Ch-XX indicates the number of days since the unit has stopped due to excessive lube line backpressure. (All functions will stop except TEST MODE to protect unit)
Test		Indicates that the test mode is activated.
Auto Locking		Indicates that the unit is in lock mode. The unit cannot be reprogrammed in this mode.
Battery		Indicates low battery power
Backpressure Sensing Capability		Backpressure sensing capability function. Indicates to check bearing zerk and grease feed line To clear this icon, just press the "Test" Button for 2 seconds.
Replacement Service Pack		Empty grease level Indicates that the lube cycle has been completed and that the grease pouch is empty.
Grease Volume Selection	125 / 250	Indicates grease pouch size (volume 125 / 250cc).
Singnal Lamp		The Red LED will blink periodically when low battery power, excessive backpressure, or low grease levels exist.

Buttons

Name	Display	Function
For Setting Dispensing Period & To deactivate lock		Select any of the six different dispensing rates available.. (1/2, 1, 2, 3, 6, 12 Months) Note: The dispensing rate can be changed during operation. The 125 / 250cc lubricator comes with a unique automatic "Locking system" to prevent any possible accidental re-programming of the unit after it has been set. The EM, EM-X unit automatically locks the keypad 30 seconds after it has been programmed, and will display a lock icon → (🔒) on the LCD. You cannot reprogram the unit once the locking system has been activated. To unlock, simply press the "Mode/Lock" button on the unit's keypad for two seconds or until the Lock icon disappears. You may re-program the unit once the locking system has been deactivated.
Power ON/OFF		Press this button for 2 seconds to turn unit on or off.
Test		The test function is provided to make sure that the unit is working properly prior to installation or after changing the service pack. IMPORTANT: To activate the test mode, depress the test button for 2 seconds. The word "test" will start blinking on the LCD and the unit will begin to dispense grease during a 2minute cycle. To deactivate test mode, depress the test button again. The unit will stop the testing cycle within 20 seconds; otherwise it will continue testing for the remainder of the 2 minutes. If the unit does not operate in Test Mode, it should be returned to your supplier for inspection.
Reset		Use to reset the unit back to its original default setting if: - There exists an abnormal display on LCD screen. - The unit malfunctions, or if the Power Button is not responding. CAUTION! Pressing the reset button will eliminate all previous settings and preprogrammed data in memory. i.e. counter

Warning

- Explosion Hazard-Do not removes or replaces batteries unless power has been disconnected or the area is known to be free of ignitable concentrations of flammable gases or vapors.
- This equipment is suitable for use in Class I, Division 2, Groups C and D Hazardous Locations OR non-hazardous locations only.
SUBSTITUTION OF MOTOR AND REED SWITCH MAY IMPAIR SUITABILITY FOR DIVISION

- The enclosure does not comply with the requirements of resistance to light (ISO 4892). DO NOT EXPOSE IN SUNLIGHT DIRECTLY
- This product does not submit the shock test (EN 60068-2-27). AVOID MECHANICAL SHOCK OR DAMAGE TO PRODUCT
- DO NOT OPEN WHEN ENERGIZED.
- DO NOT USE ANY OTHER TYPE OF BATTERY EXCEPT STANDARD BATTERY.

Lubri-Cup EM & EM-X (125/250cc Automatic Lubricator)

Specification

Specification	Lubri-Cup EM	Lubri-Cup EM-X
Grease pouch	125 or 250cc (replaceable)	← Same as
Power	DC 4.5 Volt (BATTERY PACK) Standard: Alkaline Battery Option: Lithium Battery	DC 4.5 Volt (BATTERY PACK) Standard: Alkaline Battery
Temperature	Standard Battery: 5°F~140°F (-15°C~+60°C) Lithium Battery: -40°F~140°F (-40°C~+60°C)	Standard Battery: 14°F ~ 122°F(-10° C~50° C)
Working Pressure	Under 280 psi (20kgf/cm²)	Under 200 psi (15kgf/cm²)
Size	Height; 9.5in(240mm) x Diameter; 4in (101mm)	← Same as
Weight	125cc : 1.90 lb (860g) 250cc : 12.32 lb (1.050g)	← Same as
Thread size	NPT 3/8"	← Same as
Dispensing Period	1/2, 1, 2, 3, 6, 12 Months (6 different mode)	← Same as
Multi point	Up to 8 points	Single point
Package	Main unit	← Same as
	Service pack	
	4 units packed in 1 box 1 case (2 boxes; 8 units)	Individually packed 1 case (20 units)

NOTE Technical information is subject to change without notice.

Safety instructions

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

- Please read and save all notices, warnings and safety instructions included with equipment.
- Battery Safety Instructions**
 - Store battery at temperatures between 40 °F and 80 °F for best results.
 - Do not expose BATTERY PACK to direct sunlight or high heat for extended periods of time.
 - Keep battery within 20 °F and 150 °F when transporting or temporarily storing BATTERY PACK.
 - Keep BATTERY PACK away from flammable materials.
 - Exposing BATTERY PACK at temperatures greater than 170° F for extended periods of time (more than 2 hours) may cause damage to BATTERY PACK and cause possible fire.
- Warning**

Do not install lubricator in areas where the unit may be exposed to flames and or excessive heat. These conditions may cause the BATTERY PACK to burst thereby putting people in danger due to the presence of noxious fumes.
- Product Warranty**

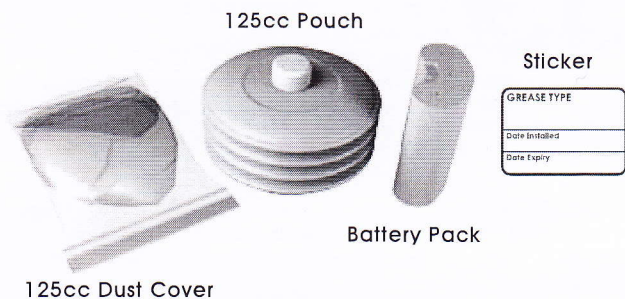
Product warranty is limited to original defects in material and workmanship. Warranty does not cover collateral damage due to mishandling, abuse, incorrect charging and or any other inappropriate use of this product.

Components

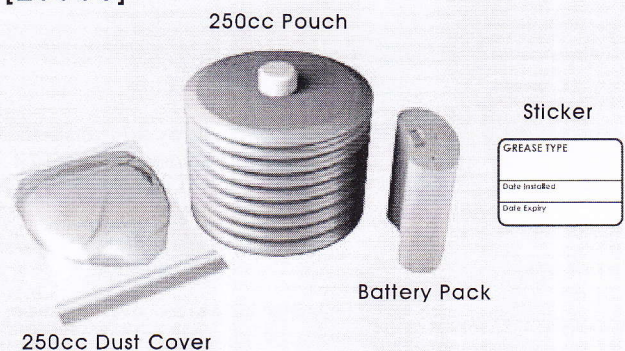


Service Pack

[125cc]






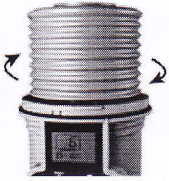


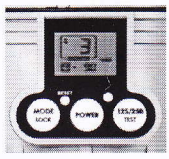

[250cc]





Installation & Service Pack Replacement

➤ Lubri-Cup EM & EM-X

A. First Installation

Display	Function	
	1. Before installing the Lubri-Cup EM, EM-X the lubrication point (bearing and passage) should be manually lubricated using a grease gun to ensure that the bearing has a clear passage. It is recommended that this procedure be conducted using either the same or a compatible lubricant with what is contained in the grease pouch of the Lubri-Cup EM, EM-X. If any doubts exist in regards to a clear lubrication flow, test the backpressure of the bearing with a grease gun connected to a pressure gauge. Ensure that the break - off pressure is below 500 psi (approx. 35 kg-f/cm ² , or 34.5 bar). It is always best to keep the constant delivery pressure as low as possible.	
	2. Remove the grease nipple. Check for hardened grease in bearing zerk. If hardened grease exists, clean zerk before mounting the unit on bearing.	
	3. Insert the BATTERY PACK into the battery compartment of the main unit. (Make sure that the battery is locked in place after insertion by turning the metal clip on top)	
	4. Place the pointed open end of the grease pouch over the lubricators' top check valve.	 5. And turn top housing clockwise until you hear the top housing "click".
	6. Install an appropriate 3/8" NPT or BSP adaptor and make sure that the adaptor is well tightened to the unit. The 3/8" brass tip of the unit is vibration proof. In other words it ensures that the fitting will not snap off at the nose even under severe vibration or shock load. For installations that involve extreme vibration, excessive heat, or service location that is considered dangerous, use the remote mounting bracket (clamping device) and 1/4" hose no longer than 10ft.	
	7. Turn the Lubri-Cup EM, EM-X unit ON by depressing the POWER button for 2 seconds. To confirm that the LCD is working, make sure that the Red LED blinks once as soon as you press the "power" button. The unit is working as long as the LCD displays information. Next, press the TEST button for 2 seconds. The unit will start to dispense grease. The unit will operate continuously in Purge mode and go through an entire cycle of (approximately 2 min). To deactivate the TEST MODE FUNCTION, press the TEST button again. The unit will stop testing within the next 20 seconds. Depress the MODE button to set the dispensing rate. Each time the MODE button is depressed, the dispensing rate changes in ascending order i.e. 1 ▶ 2 ▶ 3 ▶ 6 ▶ 12 ▶ H. Note: (H = Half month.) NOTE If you are unable to program a setting and a lock icon is displayed, press the mode button for 2 seconds until the lock icon disappears. Program your lubricator. The unit will automatically lock 30 seconds after you stop pressing any of the 3 programming buttons.	
<div style="border: 1px solid black; padding: 5px;"> GREASE TYPE <hr/> Date Installed <hr/> Date Expiry </div>	8. Use attached label to note grease type, installation and date of expiration of lube cycle.	 9. Use Dust cover to keep the clean.

B. Change of Service Pack (Repeat above steps 3 – 9)

Display	Function	
	1. Remove the pouch, then remove the BATTERY PACK from the battery compartment of the main unit. <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> NOTE 1) It is highly recommended that you use a factory filled grease pouch. (Warranty will be void if unit malfunctions due to a problem caused by a customer filled pouch) 2) BATTERY PACK Must Always be replaced along with pouch. </div>	
<div style="border: 1px solid black; padding: 5px;"> GREASE TYPE <hr/> Date Installed <hr/> Date Expiry </div>	2. Use attached label to record grease type, installation, and date of expiration of lube cycle.	 9. Use Dust cover to keep the clean.

Lubri-Cup EM & EM-X (125/250cc Automatic Lubricator)

TROUBLESHOOTING GUIDELINE

Trouble	Cause	Remedy
LCD SCREEN DISPLAYS FAULT OR RED LIGHT BLINKING OR BLANK SCREEN.	<ul style="list-style-type: none"> - Possible electrical malfunction of CPU or circuitry. - BATTERY PACK missing, incorrectly installed, or may faulty. - Old Battery pack was not replaced during service pack replacement. - Battery leakage occurred. 	<ul style="list-style-type: none"> - Utilize standard manufacturer's battery - The BATTERY PACK must be replaced with each service pack replacement. - Store BATTERY PACK in a cool, dry area to prevent damage.
UNIT WON'T OPERATE	<ul style="list-style-type: none"> - BATTERY PACK missing, faulty or incorrectly installed. - Old BATTERY PACK not replaced during changeover 	<ul style="list-style-type: none"> - The BATTERY PACK must be replaced with each changeover. - Ensure BATTERY PACK is correctly installed.
LOW BATTERY INDICATION	<ul style="list-style-type: none"> - BATTERY PACK expired (Low Battery) - An unusual storage condition may be encountered (Temperature or Humidity) - Damaged BATTERY PACK - Extreme environment (e.g. exceeds -15°C ~ +60°C : 5~140°F) 	<ul style="list-style-type: none"> - Replace BATTERY PACK - Store BATTERY PACK in a cool and dry place prevent impact damage - Ensure operating environment meets requirements.
BACKPRESSURE SENSING CAPABILITY	<ul style="list-style-type: none"> - Over lubrication occurring - Grease blockage - Excessive back pressure - Extreme operating temperature (e.g. exceeds -15°C ~ +60°C : 5~140°F) 	<ul style="list-style-type: none"> - Confirm correct dispensing rate - Check lube line and bearing history - Determine cause and rectify. <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>NOTE IMPORTANT : To clear I-con for the Backpressure sensing capability, press TEST button for 2 seconds. If not clear I-con, then please contact local suppliers.</p> </div>
UNIT WON'T DISPENSE GREASE	<ul style="list-style-type: none"> - GREASE POUCH incorrectly fitted - GREASE POUCH empty - Loose spring or pressure plate - Grease hardening due to cold temperature or high oil bleeding. 	<ul style="list-style-type: none"> - Fit GREASE POUCH correctly - Replace GREASE POUCH and BATTERY PACK - Refit spring or pressure plate - Use appropriate quality grease for operating environment

Explosion Proof Certification

Certification	UL	ATEX	KTL	Remark	
Rating	Class I Division 2 Groups - C, D	EEx nL IIB T5 IP54	Ex nC IIB T5 IP54	-	
Gas groups	D-C1 I Div 1/2	IIA	IIA	Propane	Typical Gas
	D-C1 I Div 1/2	IIB	IIB	Ethylene	
Maximum Surface Temperature	T6(85℃)	T5(100℃)	T5(100℃)	The skin temperature shall not exceed the minimum ignition temperature of the substances to be found in the hazardous location. The "T" code designations apply to motors and other types of electrical equipment subject to hazardous location classification.	
Enclosure protection indices	-	IP54	IP54	Protection against dust; -IP5X Dust penetration is not prevented altogether, but dust must not enter in sufficient quantities to prevent the equipment from operating satisfactorily, or to impair safety. Protection against water spray; -IPX4 Water splashes on to the enclosure from any direction must not have any harmful effects.	
Classification of hazardous locations	Cl I Div2 Cl I Zone2(gas)	Zone2(gas) Zone22(dust)	-	Ignitable concentrations not likely to exist under normal operations, or may exist for a short time only	
Certificate number	E304815	LCIE 07 ATEX 6100X	2007-1167-Q1	-	



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